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Taylor/R1/USEPA/US
09/14/2006 05:22 PM

To Audrey Zucker/R1/USEPA/US@EPA
cc
bcc
Subject Re: swank



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silver and copper will turn black either when oxidized or corroded...i found this piece on why gold rings will turn your fingers black, it's not the gold, it's the other alloys in the gold, such as silver and copper, but i imagine that nickel and zinc will do the same (all are COCs at the site). as i also mentioned to you before, belt buckles were typically made of brass, which is composed of nickel and zinc, and swank clearly made belt buckles, so they were using nickel and zinc. i've got some more info i can bring by if you want re: jewelry manufacturing and the production of dusts. the only other thing that we could hang them on is if we found cyanide at the site. it's not a coc, but we may have found it below risk levels. cyanide was used in the manufacturing process. also, we have cleanup numbers in the rod for Cadmium and Lead, and both are commonly found in solder, which would be a component of the dust that is produced during the soldering process

You may think that faulty manufacturing or underkarating might be the problem when a ring "turns," blackening or discoloring either the skin and clothing, or the jewelry itself. However, that is not the case. Please understand the causes and how to prevent them.

The most common reason is metallic abrasion, caused by makeup on skin or clothing. Cosmetics often contain compounds harder than the jewelry itself, which wear or rub off very tiny particles. Very finely divided metal always appears black rather than metallic, so it looks like a jet-black dust. When this dust comes into contact with absorbent surfaces such as skin or clothing, it sticks, forming a black, smudge.

Another cause is actual corrosion of the metals, Gold itself does not corrode, but its primary base-metal alloys of silver or copper will do so—forming very dark chemical compounds,—under moist or wet conditions.

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To

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09/14/2006 02:02 PM

cc

Subject swank

notice that the short report I gave you mentions dust collectors in the 1947 Swank facility building.